

AMENDMENTS TO THE CLAIMS

Please amend claims 1 and 9, cancel claims 4 and 8, and add new claim 12, as set forth in the listing of claims that follows:

(insert listing of amended claims)

1. (currently amended) An antenna unit, comprising:
 a wire antenna element;
 a patch antenna element, wherein nulls of a terrestrial signal polarization pattern are directed toward a passenger compartment of a vehicle to create a larger spatial region for reception of terrestrial signals that propagate toward the vehicle,
 wherein a height and off-centering of the wire antenna element from a central area of the antenna unit directly shifts the null of the terrestrial signal polarization pattern.
2. (original) The antenna unit according to Claim 1, wherein the patch antenna element includes a high dielectric substrate intermediately located between a top metallization and a bottom metallization.
3. (original) The antenna unit according to Claim 2, wherein a feed pin electrically couples the top metallization to the bottom metallization.
4. (canceled)
5. (original) The antenna unit according to Claim 1, wherein the wire antenna element is a straight-wire element soldered to the patch antenna element.
6. (original) The antenna unit according to Claim 1, wherein the wire antenna element is a helical element soldered to the patch antenna element.

7. (original) The antenna unit according to Claim 1, wherein the wire antenna element includes a cross-antenna element coupled to a stem that is soldered to the patch antenna element.

8. (canceled)

9. (currently amended) A method for improving antenna radiation characteristics, comprising the steps of:

 providing at least two antenna units in a vehicular diversity application, wherein the antenna unit includes a wire antenna element and a patch antenna element;

~~positioning~~ providing the wire antenna element with a height and off-centering from a central area of the antenna unit such that nulls of a terrestrial signal polarization pattern are directed toward a passenger compartment of a vehicle; and

 providing a larger spatial region for reception of terrestrial signals that propagate toward the vehicle.

10. (original) The method according to Claim 9, wherein the at least two antenna units are positioned in a diversity application.

11. (original) The method according to Claim 10, wherein the diversity application positions are selected from the group consisting of a vehicular a center location, left, driver-side location, a right, passenger-side location, a hood location, a left, driver-side front quarter panel location, a right, passenger-side front quarter panel location, an instrument panel location, an left, driver-side mirror location, and a right, passenger-side mirror location.

12. (NEW) An antenna unit, comprising:

a wire antenna element; and

a patch antenna element, wherein nulls of a terrestrial signal polarization pattern are directed toward a passenger compartment of a vehicle to create a larger spatial region for reception of terrestrial signals that propagate toward the vehicle, and

wherein the patch antenna element includes a high dielectric substrate intermediately located between a top metallization and a bottom metallization, and

wherein a feed pin electrically couples the top metallization to the bottom metallization, and

wherein the wire antenna element includes a top plate coupled to a first stem soldered to the patch antenna and a second stem joined directly to the feed pin.